Clinical interventions for trauma-exposed preschoolers

Mary Margaret Gleason
Tulane University School of Medicine
Institute of Infant and Early Childhood Mental Health
AARC National Meeting
New Orleans LA
Overview

- Developmental issues in trauma and preschool children
- Psychotherapeutic approaches
- Psychopharmacological Interventions
- Clinical Decision Making
**Traumatic Event**

- **DSM-IV:** Event which includes
  - Actual or threatened death or serious injury
  - OR Threat to the physical integrity of self or others
  - AND Response involved fear, helplessness, horror

- “Disruption of protective shield”
  - Pynoos, 2006
Epidemiology

Child maltreatment:
- 3 million reports of child abuse/year in US
- Approximately 1 million validated cases
- Children < 3 have highest rates validated maltreatment: 16.0 per 1000 children (Cicchetti et al., 2005)

High rates of exposure to other traumas
Developmental Issues in Preschool Trauma Exposure

- **Rapid development!**
- **Neurobiology**
  - Rapid brain development (e.g. Neurons to Neighborhoods)
    - Myelination
    - Consolidation of use-dependent neural networks occurs (Kandel et al 2000)
    - Programmed cell death
Developmental Issues in Preschool Trauma Exposure (2)

- **Cognitive capacity**
  - Developing ability to distinguish true threat (e.g. attack) from startling events or perceptual stimuli (e.g. pediatric physical examination)
  - Egocentrism predominates
  - Emerging symbolic representation skills

- **Emotional development**
  - Ability to regulate affect
  - Peak period for expression of fears
Developmental Issues in Preschool Trauma Exposure (3)

- Language:
  - Increasing expressive and receptive skills, although still limited
  - Particularly limited ability to describe internal states
Developmental Issues in Preschool Trauma Exposure (4)

Development occurs within context of the parent-child relationship, particularly the attachment relationship:
- Can be protective against influence of trauma exposure on child
- Trauma may impact a child’s perception of caregiver as protector and provider of safety
- Parental trauma exposure may influence relationship qualities
- Sensitive to relationship disruptions & separations
Developmental Issues in Preschool Trauma Exposure (5)

- Adult/societal perceptions of childhood
  - May limit recognition of symptoms
  - May be associated with parental/teacher misattributions related to behavioral changes (“just wants attention”)
  - May reduce access to treatment
Early Childhood Mental Health Therapeutic Process

Therapist
Child Parent Psychotherapy

- Applies psychodynamic and attachment theories
- Dyadic therapy focused on mother, with child always a part of the therapy

Goals

- Create a common language to describe what happened
- Regulate the overwhelming affect associated with the experience
- Enhance the parents’ capacity to respond in developmentally appropriate ways to the child’s basic needs for protection, nurturance, and socialization
- Restore trust in the parent’s ability to protect the child from external and internal danger

(Lieberman, 2009)
Early Childhood Treatment

CPP

Therapist

CPP

CPP
CPP techniques

- Psychodynamic techniques
  - “Meet the family where they are”
    - Flexibility in therapy site/activity
    - Assist with basic needs assessment/case management referrals
    - Does not require traditional therapy session boundaries
- Create corrective attachment experiences
- Create opportunities for positive interactions
  - Provide opportunities for parent and child to learn and practice satisfying interactions
  - “Speaking for the baby”
- (Lieberman)
Speaking for the Baby
Child Parent Psychotherapy: Empirical Support

- 4 randomized controlled trials involving trauma-exposed children
Dyadic therapy techniques

Interaction Guidance *(McDonough)*
- For families who would be less likely to engage in traditional therapy modalities
- Uses video of parent-infant interactions
- Therapist provides positive feedback about interactions
Cognitive Behavioral Therapy

- Uses core components from older children CBT
- Adapted to the developmental needs of young children
  - Parents involved in every session
    - Allows them to support child’s skill development
    - Parent learns about child symptoms
    - Parent can help interpret child non-verbal cues
Overview of 12-Session Preschool Manual

1. Psychoeducation/overview/and introductions to several techniques
2. Defiance and behavioral plans
3. Practice identifying feelings
4. Learn relaxation techniques
5. Tell the story
6-10. Graded exposure work
11. Relapse prevention
12. Coherent review, graduation

(Scheering et al., 2006)
CBT: Loosey Noodles
CBT: Empirical Support

- 3 Randomized controlled trials
- 100% of children 3-6 were able to learn relaxation skills, rate own anxiety, and do imagination exposure.
- Large effect size on decrease in PTSD diagnosis and symptoms
- Also decreases in associated symptoms of
  - MDD
  - Separation Anxiety Disorder
  - ODD
- Effect size increased after 6 months
Parent Child Interaction

- Developed to treat disruptive behavior disorders
- In-vivo coaching parental coaching
  - Therapist as coach, parent as therapist
  - Part I: parents practice following lead, using differential social attention, and positive reinforcement
  - Part II:
    - Parents learn to give effective command, safe implementation of time out,
    - Child practices following directions
PCIT video

To : 15
PCIT in general population

- Decreased symptoms of disruptive behaviors
- Decreased negative parent-child interactions
- Sustained results up to 6 years later
  (reviewed in Eyberg et al 2008)
PCIT in trauma-exposed populations

- Maltreated children and maltreating parents
  - More effective in addressing child behaviors than community parenting groups
  - Decreased child externalizing and internalizing symptoms
  - Decreases negative and coercive parent->child interactions
  - Reduces maltreatment recidivism 2.5 years later  *(Chaffin 2004)*
PCIT in trauma-exposed populations

- Motivational enhancement interventions reduce drop-outs (Chaffin et al. 2011, 2009)
- Equal efficacy in decreasing child behavior symptoms in children in foster care and non-maltreated children (Timmer 2006)
- Ongoing studies examining effects in children exposed to domestic violence (Borrego et al. 2008)
Psychopharmacological Interventions
Randomized Controlled Trials of Trauma-Exposed Preschoolers
Evidence base in trauma-exposed children

- Clonidine
  - N=7
  - Open trial
  - Concurrent treatment in intensive day program
  - Associate with decreased
    - Aggression
    - Impulsivity
    - Hyperarousal
    - Sleep problems

*(Harmon and Riggs, 1996)*
Evidence base in non-trauma exposed preschoolers: ADHD

**Methylphenidate: Preschool ADHD Treatment Study** *(Greenhill et al 2006)*
- N=165
- Decreased ADHD sx’s compared with pcb
- Lower ES than school age children
- Higher rates of AE than school age children

**Atomoxetine** *(Kratchovil 2011)*
- Decreased ADHD sx’s by parent and teacher report
- (40% responder vs 22% responder) NS
- AE: GI distress, appetite decrease, sedation
Evidence Base

Disruptive behavior disorders

- RCT’s: None
- Prospective studies: None
- Retrospective chart reviews
  - Total n= 59
  - Using risperidone, stimulants, alpha agonists, AEDs
  - Generally positive reports using CGI
  - (Cesena 2002, Staller et al 2007)
Evidence base: Mood disorders

- **Major Depressive Disorder**
  - No studies of medications (despite strong evidence for validity)

- **Bipolar disorder**
  - Few studies with structured assessments
  - 3 retrospective chart series, 1 case report, 1 open trial (n=78)
  - Atypical antipsychotic agents, AEDs, Lithium
  - Positive reports of clinical improvement (limited systematic reporting)
  - Substantial AE reported
    - AAA- weight gain, 5x increase in prolactin

Evidence Base: Anxiety Disorders

- No randomized controlled trials
- Multiple case reports, 1 chart review
- Reports include
  - SSRI's (fluoxetine, citalopram, sertraline, paroxetine, fluvoxamine)
  - Benzodiazepines
  - AAAs (to treat activation from SSRI's)
  - Opiates (acute stress disorder from burns)
Evidence base: Sleep disorders

- No randomized controlled trials in preschool trauma-exposed patients
- No RCT’s in preschoolers or typically developing children except diphenhydramine and melatonin
- RCT’s in children including preschoolers using melatonin
  - Decreased sleep onset latency, increased total sleep in typically developing and neurodevelopmental disorders
  - No age-specific results reported
  - (e.g. van Geijlswijk IM 2010; Smits 2001 Gupta 2005, reviewed in Rossingol 2011)
Clinical treatment guidelines for trauma-exposed preschoolers

- Assess and advocate for safety
  - Physical safety
  - Emotional safety

- Careful assessment of clinical situation
  - Apply DSM IV RDC or DC 0:3 R criteria
  - Consider role of parent-child relationship (protective or risk factor)
  - Consider all 5 axes
Consider most accessible intervention point
Family interventions

- Parental mental health care/referral as appropriate
- Enhance community supports
Ideal world: Match clinical situation to empirically supported intervention
Real world

- Individual-based mental health system (not family)
- Limited evidence base for most common disorders and co-occurring disorders
- Time
- Access
  - Providers
  - Reimbursement
Special psychopharmacological considerations in trauma exposed children

- Stability of caregiving setting
- Shared trauma experiences
- Ability of caregivers to maintain and administer medication safely
  - Caregiver symptoms
  - Sedation desires
  - Suggests that general population studies may not be applicable to this population
Guidelines for psychopharmacologic treatment

- Know what you are treating
- Track symptom responses systematically
- Be aware of potential for misuse (depending on clinical situation)
- Avoid adding medications to treat adverse effects
- Recognize polypharmacy has no empirical support in this age group

(AACAP Preschool Psychopharm Working Group 2007)
Considerations for systems

- Monitor exposure of vulnerable children to psychopharmacological treatment (e.g. foster care)
- Track outcomes carefully
- If using alert system, set # meds/type of meds at developmentally appropriate level
- Be aware that most rigorous studies demonstrate less robust effects and more adverse effects...
  - Empirically supported, non-pharmacologic interventions MUST be available to trauma-exposed young children
    - Requires training
    - Requires adequate reimbursement
  - We need more rigorous research to study interventions for more effective pharmacological and non-pharmacological interventions